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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,170	01/22/2004	Bahar N. Wadia	37041-11007	7836
2574	7590	09/22/2005	EXAMINER	
JENNER & BLOCK, LLP ONE IBM PLAZA CHICAGO, IL 60611			TRUONG, BAO Q	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/764,170

Applicant(s)

WADIA ET AL.

Examiner

Bao Q. Truong

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 34 is objected to because of the following informalities:

Claim 34, the limitation, "the side wall is covered with a substantially opaque material", is repeated.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-9 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen [US 5,226,723].

Regarding claim 1, Chen discloses a display having a substrate [2] with a first surface and a second surface, a penetration through the substrate [2] with a side wall [21], an entrance opening, an exit opening, and a light source [3] connected with wires [31] and a circuit board [1] (figures 1 and 2).

Regarding claim 2, Chen discloses said substrate [2] being uniform thickness (figure 1).

Regarding claim 3, Chen discloses said substrate [2] being of varying cross-section (figure 1).

Regarding claim 4, Chen discloses a printed wiring board [1] (figure 1).

Regarding claim 5, Chen discloses a user interface panel [2] (figure 1).

Regarding claims 6-9, Chen discloses a reflective side wall coating [21] (figures 1-2).

Regarding claims 17-20, Chen discloses LED [3] (figure 2).

Regarding claims 21, Chen discloses a single element defined by a single aperture (figures 1-2).

Regarding claims 22, Chen discloses a plurality of elements defined by a plurality of apertures (figures 1-2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Telefonbau [DE 1099403].

Regarding claims 10-12, Chen discloses a through penetration (figure 1); Chen does not disclose the light guide within the penetration.

Telefonbau teaches a light guide [5] within a penetration (figure 4).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the penetration of Chen with the light guide as taught by Telefonbau to transmit light for purpose of providing a combined solid structure with a substrate to prevent breakable.

Regarding claims 13-14, Chen discloses the substrate [2] being substantially imperious to light transmission (figures 1-2).

Regarding claim 15, Telefonbau discloses a light diffuser [2] (figure 4).

Regarding claim 16, Telefonbau discloses a layer of light transmissive [12] (figure 4).

6. Claims 23-28 are rejected under 35 U.S.C. 103(a) as being obvious over Chen in view of Caldwell [US 5,594,222].

Regarding claims 23-28, Chen discloses a substrate [2] and a circuit board [1] being mounted thereof; Chen does not disclose the sensor mounted on the substrate, the first and second electrodes disposed on the substrate, the active component and the integrated control circuit.

Caldwell discloses a touch sensor including electrodes, an active component and an integrated control circuit (abstract, figures 1-14).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the substrate of Chen with the touch sensor including two electrodes, the active component and the integrated control circuit as taught by Caldwell

for purpose of providing an advantageous way of detecting user contact of an opposite side of a substrate.

7. Claims 29-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over [Patent Specification 1585392] in view of Chen [5,226,723].

Regarding claim 29, [Patent Specification 1585392] discloses a display having a substrate [1] with a first surface and a second surface, a cavity [6] in the substrate [1] with a side wall, an entrance opening, a closed end, and a light source [7] (figures 1-2). However, [Patent Specification 1585392] does not disclose the side wall being substantially opaque.

Chen discloses a side wall [21] being substantially opaque (figures 1-2).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the side wall of the cavity by the substantially opaque as taught by Chen for purpose of increasing brightness output.

Regarding claim 30, [Patent Specification 1585392] discloses said substrate [1] being uniform thickness (figures 1-2).

Regarding claim 31, [Patent Specification 1585392] discloses said substrate [1] being of varying cross-section (figures 1-2).

Regarding claim 32, [Patent Specification 1585392] discloses a printed wiring board for connecting terminals [8] (page 2, lines 55-60, figures 1-2).

Regarding claim 33, [Patent Specification 1585392] discloses a user interface panel [1] (figures 1-2).

Regarding claims 34-37, Chen discloses a reflective side wall coating [21] (figures 1-2).

Regarding claims 38-40, [Patent Specification 1585392] discloses the light guide within the cavity (page 2 lines 80-90).

Regarding claims 41-42, [Patent Specification 1585392] discloses a material [3, 4] substantially imperious to light transmission (figures 1-2).

Regarding claims 43-44, [Patent Specification 1585392] discloses a light diffuser [2] and a layer of light transmissive material [5] (figures 1-2).

Regarding claims 45-48, [Patent Specification 1585392] discloses LED [7] (figures 1-2).

Regarding claim 49, [Patent Specification 1585392] discloses a single element defined by a single aperture (figures 1-2).

Regarding claim 50, [Patent Specification 1585392] discloses a plurality of elements defined by a plurality of apertures (figures 1-2).

8. Claims 51-55 are rejected under 35 U.S.C. 103(a) as being obvious over [Patent Specification 1585392] in view of Caldwell [US 5,594,222].

Regarding claims 51-55, [Patent Specification 1585392] discloses a substrate [1] and a circuit board (page 2 line 55-60, figures 1-2); [Patent Specification 1585392] does

not disclose the sensor mounted on the substrate, the first and second electrodes disposed on the substrate, the active component and the integrated control circuit.

Caldwell discloses a touch sensor including electrodes, an active component and an integrated control circuit (abstract, figures 1-14).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the substrate of Chen with the touch sensor including two electrodes, the active component and the integrated control circuit as taught by Caldwell for purpose of providing an advantageous way of detecting user contact of an opposite side of a substrate.

Response to Amendment

9. Applicant's arguments filed 25 July 2005 have been fully considered but they are not persuasive. Regarding claim 1, the applicant has not clearly pointed out the patentable novelty, which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Chen [US 5,226,723] discloses all limitations of claim 1 as explain in the rejection above. Regarding claim 29, the applicant has amended "a substantially opaque side wall", However Chen [US 5,226,723] teaches the substantially opaque side wall [21] (figures 1-2).

In view of above, claims 1, 29 and their dependent claims are unpatentable.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q. Truong whose telephone number is (571) 272-2383. The examiner can normally be reached on Monday-Friday (8:00 AM - 4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bao Q. Truong
Examiner
Art Unit 2875

A handwritten signature in black ink, appearing to read 'JAW', with a large, sweeping loop at the end.

**JOHN ANTHONY WARD
PRIMARY EXAMINER**